This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (withdrawn) A construct comprising a metal ion-binding domain comprising two or more linked residues forming an N_3S_1 ligand available for complexing with a metal ion, wherein the construct is conformationally constrained in a structure specific for one or more melanocortin receptors upon complexing the metal ion-binding domain with a metal ion.

Claim 2. (original) A manufactured peptide and pharmaceutically acceptable salts thereof comprising a metal ion-binding domain comprising two or more contiguous amino acids and a determined biological-function domain specific for one or more melanocortin receptors, wherein at least a portion of said biological-function domain is co-extensive with at least a portion of the metal ion-binding domain, and wherein said biological-function domain is conformationally constrained upon complexing the metal ion-binding domain with a metal ion.

Claim 3. (withdrawn) A combinatorial library targeted to melanocortin receptors of different sequence peptide members synthesized on solid phase, where each constituent library member comprises:

(a) a peptide sequence of three or more amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues forming a metal ion-binding domain and including at least one amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, (ii) a sequence of one or more amino acid residues at the N- or C-terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain, and (iii) a cleavable bond attaching the peptide sequence to solid phase; and

(b) a unique selection or sequence of amino acid residues in the peptide sequence of

at least one of the constituent members of the library;

wherein the orthogonal S-protecting group may be removed without cleaving the peptide sequence from the solid phase.

Claim 4. (withdrawn) A combinatorial library targeted to melanocortin receptors of different sequence peptidomimetic members synthesized on solid phase, where each constituent library member comprises:

(a) a peptidomimetic sequence of a combination of three or more amino acid residues and mimics of amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues, mimics of amino acid residues or combinations thereof forming a metal ion-binding domain and including at least one amino acid residue or mimic of an amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, (ii) a sequence of one or more amino acid residues, mimics of amino acid residues or combinations thereof at the N- or C- terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain, and (iii) a cleavable bond attaching the peptidomimetic sequence to solid phase; and

(b) a unique selection or sequence of amino acid residues, mimics of amino acid residues or combinations thereof in the peptidomimetic sequence of at least one of the constituent members of the library;

wherein the orthogonal S-protecting group may be removed without cleaving the peptidomimetic sequence from the solid phase.

Claim 5. (withdrawn) A combinatorial library targeted to melanocortin receptors of different sequence peptide or peptidomimetic members synthesized in solution, where each constituent library member comprises:

(a) a peptidomimetic sequence of a combination of three or more amino acid residues and mimics of amino acid residues bound to solid phase characterized by (i) a sequence of two or more amino acid residues, mimics of amino acid residues or combinations thereof forming a metal ion-binding domain and including at least one amino acid residue or mimic of an amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group, (ii) a sequence of one or more amino acid residues, mimics of amino acid residues or combinations thereof at the N- or C- terminus of the metal ion-binding domain, or at both the N- and C-terminus of the metal ion-binding domain; and

(b) a unique selection or sequence of amino acid residues, mimics of amino acid residues or combinations thereof in the peptidomimetic sequence of at least one of the constituent members of the library.

Claim 6. (cancelled) The composition of claims 1 or 2 of the formulas:

R_1 – Lll – Aaa – Bbb – Ccc – R_2,

R_1 – Bbb – Aaa – Ccc – R_2,

R_1 – Ddd – Bbb – Aaa – R_3,

R_4 – Eee – Bbb – Ccc – R_2,

R_1 – Fff – Aaa – Ggg – Ccc – R_5,

R_1 – Hhh – Aaa – Bbb – Ccc – R_5, or

R_1 – Iii – Iii – Ccc – Jjj – Kkk – R_2,

wherein

R_1 is any functionality that potentiates the intrinsic activity of the remainder of the molecule, including but not limited to providing an auxiliary or secondary receptor contact. Any of a variety of amino acids and non-peptide groups may be employed, including an amino acid chain from one to about four neutral or charged L- or D-configuration amino acid residues. If R_1 is a non-peptide group, it may be a linear or branched alkyl, aryl, alkene, alkenyl or aralkyl chain;

Aaa is an L- or D-configuration cationic amino acid with a positively charged side chain. Preferred amino acids include L-configuration Lys, Arg, Orn, Dpr or Dbu, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. Aaa provides an N (nitrogen atom) for metal ion complexation;

Bbb is an L- or D-configuration amino acid with an aromatic side chain. Preferred amino acids include D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof. The aromatic ring in Bbb may be functionalized with halogen, alkyl or aryl groups. Bbb provides an N for metal ion complexation;

Ccc is an amino acid that provides both an N, from the alpha amino group, and an S (sulfur atom), from a side chain group, for metal ion complexation. Preferred amino acids include L- or D-configuration Cys, Pen and Hcys;

Lll is a D-configuration amino acid with an aromatic side chain. Preferred amino acids include D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof. The aromatic ring in Lll may be functionalized with halogen, alkyl or aryl groups. Lll does not provide an N for metal ion complexation;

R_2 is an amino acid with an aromatic side chain. Preferred amino acids include L- or D-configuration Phe, Trp, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. The C-terminus may be free or amidated. R_2 may also be the corresponding des-carboxyl amino acid of any of the foregoing. Alternatively, R_2 may be eliminated;

Ddd is an amino acid that provides an S, from a side chain group, for metal ion complexation. Preferred amino acids include L- or D-configuration Cys, Pen and Hcys;

R_3 is an amino acid with an aromatic side chain that provides an N for metal ion complexation. Preferred amino acids include L- or D-configuration Phe, Trp, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. The C-terminus may be free or amidated. R_3 may also be the corresponding des-carboxyl amino acid of any of the foregoing;

R_4 is a functionality that provides a cationic center. Preferred amino acids include L- or D- configuration Lys, Arg, Orn, Dpr or Dbu, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. The N-terminus of the amino acid may be functionalized with any of a variety of neutral amino acid and non-peptide groups, including linear or branched alkyl, aryl, alkene, alkenyl or aralkyl chains;

Eee is an uncharged L- or D-configuration amino acid that provides an N for metal ion complexation. Preferred amino acids include Gly and L-configuration Ala, Nle, Leu, Val, Phe or Trp, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. In a preferred embodiment, Eee isn an amino acid with an aliphatic side chain;

Fff is an L- or D-configuration aromatic amino acid. Preferred amino acids include D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), Tyr($BzlCl_2$), Tic, Tiq or Tca, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. The aromatic ring in Fff may be substituted with halogen, alkyl or aryl groups. Fff does not provide an N for metal ion complexation;

Ggg is an L- or D-configuration aromatic amino acid. Preferred amino acids include L-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. The aromatic ring in Ggg may be substituted with halogen, alkyl or aryl groups. Ggg provides an N for metal ion complexation;

R_5 is preferably an amide, substituted amide, ester or carboxylate group. R_5 may also be and L- or D-configuration amino acid or amino acid amide, including an aromatic, aliphatic, neutral or charged amino acid;

Hhh is an L- or D-configuration cationic amino acid with a positively charged side chain. Preferred amino acids include L-configuration Lys, Arg, Orn, Dpr or Dbu, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. Hhh does not provide an N for metal ion complexation;

Iii is an L- or D-configuration amino acid that provides an N for metal ion complexation. Preferred amino acids includes Ala, Gly, Nle, Val. Leu, Ile, His, Lys, or Arg, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids;

Jjj is an L- or D-configuration amino acid with an aromatic side chain. Preferred amino acids include D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof. The aromatic ring in Jjj may be functionalized with halogens, alkyl or aryl groups. Jjj does not provide an N for metal ion complexation; and

Kkk is an L- or D-configuration cationic amino acid with a positively charged side chain. Preferred amino acids include L-configuration Lys, Arg, Orn, Dpr or Dbu, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids. Aaa does not provide an N for metal ion complexation.

Claim 7. (currently amended) The composition of claim ~~1 or~~ 2 wherein the metal ion-binding domain is complexed with a metal ion.

Claim 8. (currently amended) The composition of claim ~~1 or~~ 2, wherein the composition is substantially more specific for one or more melanocortin receptors when the metal ion-binding domain is complexed with a metal ion than is the composition when the metal ion-binding amino acid sequence is not complexed with a metal ion.

Claim 9. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the metal ion-binding domain further comprises at least one N available for binding to a metal ion upon removal of the orthogonal S-protecting group.

Claim 10. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the metal ion-binding domain comprises three residues forming an N_3S_1 ligand.

Claim 11. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the orthogonal S-protecting group is S-thio-butyl, acetamidomethyl, 4-methoxytrityl, S-sulfonate or 3-nitro-2-pyridinesulfenyl.

Claim 12. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the orthogonal S-protecting group may be removed from constituent library members thereof without otherwise altering the constituent library members or any amino acid side chain protecting group therein.

Claim 13. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the structural diversity occurs in the metal ion-binding domain.

Claim 14. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein the structural diversity occurs outside the metal ion-binding domain.

Claim 15. (withdrawn) The combinatorial library of claim 3, 4 or 5 wherein one or more constituent library members include at least one amino acid residue or mimic of an amino acid residue in the sequence at the N- or C-terminus of the metal ion-binding domain containing at least one S wherein the said S is protected by a non-orthogonal S-protecting group, whereby the orthogonal S-protecting group may be removed without removing the non-orthogonal S-protecting group.

Claim 16. (withdrawn) The solid phase combinatorial library of claim 3 wherein the at least one amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group is an L- or D-3-mercapto amino acid, including but not limited to L- or D-cysteine or L- or D-penicillamine.

Claim 17. (withdrawn) The combinatorial library of claim 4 or 5 wherein the at least one amino acid residue or mimic of an amino acid residue containing at least one S wherein the said S is protected by an orthogonal S-protecting group is an L- or D-3-mercapto amino acid, including but not limited to L- or D-cysteine or L- or D-penicillamine; 3-mercapto phenylananine; 2-mercaptoacetic acid; 3-mercaptopropionic acid; 2-mercaptopropionic acid; 3-mercapto-3,3,-dimethyl propionic acid; 3-mercapto-3,3,-diethyl proprionic acid; 3-mercapto,3-methyl propionic acid; 2-mercapto,2-methyl acetic acid; 3-

cyclopentamethlene,3-mercaptopropionic acid; or 2-cyclopentamethlene,2-mercaptoacetic acid.

Claim 18. (new) The peptide of claim 2 of the formulas:

R_1 – Lll – Aaa – Bbb – Ccc – R_2,

R_1 – Bbb – Aaa – Ccc – R_2,

R_1 – Ddd – Bbb – Aaa – R_3,

R_4 – Eee – Bbb – Ccc – R_2,

R_1 – Fff – Aaa – Ggg – Ccc – R_5,

R_1 – Hhh – Aaa – Bbb – Ccc – R_5, or

R_1 – Iii – Iii – Ccc – Jjj – Kkk – R_2,

wherein

R_1 comprises a functionality that potentiates the intrinsic activity of the remainder of the molecule, including but not limited to providing an auxiliary or secondary receptor contact;

Aaa is an L- or D-configuration cationic amino acid with a positively charged side chain;

Bbb is an L- or D-configuration amino acid with an aromatic side chain;

Ccc is an amino acid that provides both a nitrogen atom (N), from the alpha amino group, and a sulfur atom (S), from a side chain group, for metal ion complexation;

Lll is a D-configuration amino acid with an aromatic side chain;

R_2 is optionally present, and if present, comprises an amino acid with an aromatic side chain;

Ddd is an amino acid that provides an S, from a side chain group, for metal ion complexation;

R_3 is an amino acid with an aromatic side chain that provides an N for metal ion complexation;

R_4 is a functionality that provides a cationic center;

Eee is an uncharged L- or D-configuration amino acid that provides an N for metal ion complexation;

Fff is an L- or D-configuration aromatic amino acid;

Ggg is an L- or D-configuration aromatic amino acid;

R_5 is an amide, substituted amide, ester or carboxylate group, or comprises an L- or D-configuration amino acid;

Hhh is an L- or D-configuration cationic amino acid with a positively charged side chain;

Iii is an L- or D-configuration amino acid that provides an N for metal ion complexation;

Jjj is an L- or D-configuration amino acid with an aromatic side chain; and

Kkk is an L- or D-configuration cationic amino acid with a positively charged side chain.

Claim 19. (new) The peptide of claim 18 of the formula R_1 – LII – Aaa – Bbb – Ccc – R_2, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 20. (new) The peptide of claim 18 of the formula R_1 – Bbb – Aaa – Ccc – R_2, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 21. (new) The peptide of claim 18 of the formula R_1 – Ddd – Bbb – Aaa – R_3, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 22. (new) The peptide of claim 18 of the formula R_4 – Eee – Bbb – Ccc – R_2, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 23. (new) The peptide of claim 18 of the formula R_1 – Fff – Aaa – Ggg – Ccc – R_5, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 24. (new) The peptide of claim 18 of the formula R_1 – Hhh – Aaa – Bbb – Ccc – R_5, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 25. (new) The peptide of claim 18 of the formula R_1 – Iii – Iii – Ccc – Jjj – Kkk – R_2, wherein the metal ion-binding domain is complexed with a metal ion.

Claim 26. (new) The peptide of claim 18 wherein R_1 comprises an amino acid chain of from one to about four neutral or charged L- or D-configuration amino acid residues.

Claim 27. (new) The peptide of claim 18 wherein R_1 comprises a linear or branched alkyl, aryl, alkene, alkenyl, or aralkyl chain.

Claim 28. (new) The peptide of claim 18 wherein Aaa is an L-configuration Lys, Arg, Orn, Dpr or Dbu, or derivative, analog or homolog thereof.

Claim 29. (new) The peptide of claim 18 wherein Aaa provides an N for metal ion complexation.

Claim 30. (new) The peptide of claim 18 wherein Bbb is a D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), or derivative, analog or homolog thereof.

Claim 31. (new) The peptide of claim 18 wherein the aromatic ring of the aromatic side chain of Bbb is substituted with one or more halogen, alkyl or aryl groups.

Claim 32. (new) The peptide of claim 18 wherein Bbb provides an N for metal ion complexation.

Claim 33. (new) The peptide of claim 18 wherein Ccc is an L- or D-configuration Cys, Pen or Hcys.

Claim 34. (new) The peptide of claim 18 wherein LII is a D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), or derivative, analog or homolog thereof.

Claim 35. (new) The peptide of claim 18 wherein the aromatic ring of the aromatic side chain of LII is substituted with one or more halogen, alkyl, or aryl groups.

Claim 36. (new) The peptide of claim 18 wherein LII does not provide an N for metal ion complexation.

Claim 37. (new) The peptide of claim 18 wherein R_2 is an L- or D-configuration Phe, Trp, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), or derivative, analog or homolog thereof.

Claim 38. (new) The peptide of claim 18 wherein the C-terminus of R_2 is amidated.

Claim 39. (new) The peptide of claim 18 wherein R_2 is a des-carboxyl amino acid corresponding to any of the L- or D-amino acid residues of claim 37.

Claim 40. (new) The peptide of claim 18 wherein R_2 is absent.

Claim 41. (new) The peptide of claim 18 wherein Ddd is an L- or D-configuration Cys, Pen or Hcys.

Claim 42. (new) The peptide of claim 18 wherein R_3 is an L- or D-configuration Phe, Trp, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal,

Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), or derivative, analog or homolog thereof.

Claim 43. (new) The peptide of claim 18 wherein the C-terminus of R_3 is amidated.

Claim 44. (new) The peptide of claim 18 wherein R_3 is a des-carboxyl amino acid corresponding to any of the L- or D-amino acid residues of claim 42.

Claim 45. (new) The peptide of claim 18 wherein R_4 is an L- or D- configuration Lys, Arg, Orn, Dpr or Dbu, or derivative, analog or homolog thereof.

Claim 46. (new) The peptide of claim 18 wherein the N-terminus of R_4 is functionalized with a neutral amino acid or non-peptide group comprising a linear or branched alkyl, aryl, alkene, alkenyl or aralkyl chain.

Claim 47. (new) The peptide of claim 18 wherein Eee is an Gly or an L-configuration Ala, Nle, Leu, Val, Phe or Trp, or derivative, analog or homolog thereof.

Claim 48. (new) The peptide of claim 18 wherein Eee is an amino acid with an aliphatic side chain.

Claim 49. (new) The peptide of claim 18 wherein Fff is a D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), Tyr($BzlCl_2$), Tic, Tiq or Tca, or derivative, analog or homolog thereof.

Claim 50. (new) The peptide of claim 18 wherein the aromatic ring of the aromatic side chain of Fff is substituted with halogen, alkyl or aryl groups.

Claim 51. (new) The peptide of claim 18 wherein Fff does not provide an N for metal ion complexation.

Claim 52. (new) The peptide of claim 18 wherein Ggg is an L-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl) or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids.

Claim 53. (new) The peptide of claim 18 wherein the aromatic ring of the aromatic side chain of Ggg may be substituted with halogen, alkyl or aryl groups.

Claim 54. (new) The peptide of claim 18 wherein Ggg provides an N for metal ion complexation.

Claim 55. (new) The peptide of claim 18 wherein R_5 is an L- or D-configuration aromatic, aliphatic, neutral or charged amino acid, optionally further comprising an amide group.

Claim 56. (new) The peptide of claim 18 wherein Hhh is an L-configuration Lys, Arg, Orn, Dpr or Dbu, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids.

Claim 57. (new) The peptide of claim 18 wherein Hhh does not provide an N for metal ion complexation.

Claim 58. (new) The peptide of claim 18 wherein Iii is an Ala, Gly, Nle, Val. Leu, Ile, His, Lys, or Arg, and derivatives, analogs or homologs thereof, including both natural and synthetic amino acids.

Claim 59. (new) The peptide of claim 18 wherein Jjj is a D-configuration Phe, Phe(4'Cl), Phe(3',4' Di-Cl), Phe(4'-nitro), Phe(4'-methyl), Phe(4'-Phenyl), Hphe, Pgl, Trp, 1-Nal, 2-Nal, Ser(Bzl),

Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), or Tyr($BzlCl_2$), and derivatives, analogs or homologs thereof.

Claim 60. (new) The peptide of claim 18 wherein the aromatic ring of the aromatic side chain of Jjj is substituted with one or more halogen, alkyl or aryl groups.

Claim 61. (new) The peptide of claim 18 wherein Jjj does not provide an N for metal ion complexation.

Claim 62. (new) The peptide of claim 18 wherein Kkk is an L-configuration Lys, Arg, Orn, Dpr or Dbu, or derivative, analog or homolog thereof.

Claim 63. (new) The peptide of claim 18 wherein Kkk does not provide an N for metal ion complexation.